In the claims

1. (original) A method of creating a field electron emission material, comprising the steps of:

   a. applying a silica precursor to graphite particles;

   b. processing said silica precursor to produce amorphous silica which is doped and/or is heavily defective; and

   c. disposing said graphite particles upon an electrically conductive surface of a substrate such that they are at least partially coated with said amorphous silica.

2. (original) A method according to claim 1, wherein said graphite particles are formed as particle-like projections or tips fabricated on said conductive surface.

3. (original) A method according to claim 1, comprising the steps of

   a. mixing said graphite particles with said silica precursor to form a first mixture;

   b. applying said first mixture to said conductive surface; and then

   c. processing said first mixture to produce a second mixture of said graphite particles mixed with said amorphous silica.

4. (original) A method according to claim 1, comprising the steps of

   a. mixing said graphite particles with said silica precursor to form a first mixture;

   b. processing said first mixture to produce a second mixture of said graphite particles mixed with said amorphous silica; and then

   c. applying said second mixture to said conductive surface of said substrate.

5. (currently amended) A method according to claim 1, wherein said silica precursor, a first mixture of said graphite particles with said silica precursor, or a second mixture of said graphite particles mixed with said amorphous silica ~~said first mixture or said second mixture~~ is applied to said conductive surface by a spinning process.

6. (currently amended) A method according to any claim 1, wherein said silica precursor, a first mixture of said graphite particles with said silica precursor, or a second mixture of said graphite particles mixed with said amorphous silica ~~said first mixture or said second mixture~~ is applied to said conductive surface by a spraying process.

7. (currently amended) A method according to claim 1, wherein said silica precursor, a first mixture of said graphite particles with said silica precursor, or a second mixture of said graphite particles mixed with said amorphous silica ~~said first mixture or said second mixture~~ is applied to said conductive surface by a printing process.

8. (original) A method according to claim 7, wherein said printing process is an inkjet printing process.

9. (original) A method according to claim 7, wherein said printing process is a screen printing process.

10. (currently amended) A method according to claim 1, wherein said silica precursor, a first mixture of said graphite particles with said silica precursor, or a second mixture of said graphite particles mixed with said amorphous silica ~~said first mixture or said second mixture~~ is applied to selected locations of said conductive surface by a lift-off process.

11. (currently amended) A method according claim 1, wherein said silica precursor, a first mixture of said graphite particles with said silica precursor, or a second mixture of said graphite particles mixed with said amorphous silica ~~said first mixture or said second mixture~~ is in the form of a liquid ink.

12. (previously presented) A method according to claim 1, wherein said silica precursor comprises a sol-gel.

13. (original) A method according to claim 12, wherein said sol-gel is synthesised from tetraethyl orthosilicate.

14. (original) A method according to claim 13, wherein said sol-gel comprises silica in a propan-2-ol solvent.

15. (original) A method according to claim 14, wherein said sol-gel comprises silica in a propan-2-ol solvent with the addition of acetone.

16. (previously presented) A method according to claim 1, wherein said silica precursor is a soluble precursor.

17. (original) A method according to claim 16, wherein said silica precursor is a soluble polymer precursor.

18. (original) A method according to claim 17, wherein said soluble polymer precursor comprises a silsequioxane polymer.

19. (original) A method according to claim 18, wherein said silsequioxane polymer comprises ß-chloroethylsilsequioxane in solvent.

20. (previously presented) A method according to claim 1, wherein said silica precursor comprises a dispersion of colloidal silica.

21. (currently amended) A method according to claim 1, wherein said silica precursor, a first mixture of said graphite particles with said silica precursor, or a second mixture of said graphite particles mixed with said amorphous silica ~~said first mixture or said second mixture~~ is in the form of a dry toner.

22. (previously presented) A method according to claim 1, wherein said amorphous silica or the precursor therefor is doped by a metal compound or metal cation.

23. (original) A method according to claim 22, wherein said metal compound is a nitrate or an organo-metallic compound.

24. (original) A method according to claim 22, wherein said amorphous silica is doped by means of tin oxide or indium-tin oxide.

25. (previously presented) A method according to 22, wherein said amorphous silica is doped by means of a compound of iron and/or manganese.

26. (previously presented) A method according to claim 1, wherein said processing of said amorphous silica comprises heating.

27. (original) A method according to claim 26, wherein said heating is carried out by laser.

28. (previously presented) A method according to claim 1, wherein said processing of said amorphous silica comprises exposure to ultraviolet radiation.

29. (original) A method according to claim 28, wherein said exposure is in a predetermined pattern.

30. (previously presented) A method according to claim 1, wherein said graphite particles comprise carbon nanotubes.

31. (previously presented) A method according to claim 1, wherein said graphite particles comprise non-graphite particles which are coated or decorated with graphite.

32. (currently amended) A method according to claim 31, wherein said graphite is oriented to expose ~~the~~ prism planes.

33. (previously presented) A method according to claim 1, wherein processing of said amorphous silica is such that each of said particles has a layer of said amorphous silica disposed in a first location between said conductive surface and said particle, and/or in a second location between said particle and the environment in which the field electron emission material is

disposed, such that electron emission sites are formed at at least some of said first and/or second locations.

34. (cancelled)

35. (withdrawn) A field electron emitter comprising field electron emission material that has been created by a method according to claim 1.

36. (withdrawn) A field electron emission device comprising a field electron emitter according to claim 35, and means for subjecting said emitter to an electric field in order to cause said emitter to emit electrons.

37. (withdrawn) A field electron emission device according to claim 36, comprising a substrate with an array of patches of said field electron emitters, and control electrodes with aligned arrays of apertures, which electrodes are supported above the emitter patches by insulating layers.

38. (withdrawn) A field electron emission device according to claim 37, wherein said apertures are in the form of slots.

39. (withdrawn) A field electron emission device according claim 36, comprising a plasma reactor, corona discharge device, silent discharge device, ozoniser, an electron source, electron gun, electron device, x-ray tube, vacuum gauge, gas filled device or ion thruster.

40. (withdrawn) A field electron emission device according to claim 36, wherein the field electron emitter supplies the total current for operation of the device.

41. (withdrawn) A field electron emission device according to claim 36, wherein the field electron emitter supplies a starting, triggering or priming current for the device.

42. (withdrawn) A field electron emission device according to claim 36, comprising a display device.

43. (withdrawn) A field electron emission device according to claim 36, comprising a lamp.

44. (withdrawn) A field electron emission device according to claim 43, wherein said lamp is substantially flat.

45. (withdrawn) A field electron emission device according to claim 36, wherein said emitter is connected to an electric driving means via a ballast resistor to limit current.

46. (withdrawn) A field electron emission device according to claim 45, wherein said ballast resistor is applied as a resistive pad under an emitting patch.

47. (withdrawn) A field electron emission device according to claim 36, wherein said emitter material and/or a phosphor is/are coated upon one or more one-dimensional array of conductive tracks which are arranged to be addressed by electronic driving means so as to produce a scanning illuminated line.

48. (withdrawn) A field electron emission device according to claim 47, including said electronic driving means.

49. (withdrawn) A field electron emission device according to claim 36, wherein said field emitter is disposed in an environment which is gaseous, liquid, solid, or a vacuum.

50. (withdrawn) A field electron emission device according to claim 36, comprising a cathode which is optically translucent and is so arranged in relation to an anode that electrons emitted from the cathode impinge upon the anode to cause electro-luminescence at the anode, which electro-luminescence is visible through the optically translucent cathode.

51. (cancelled)